

Central Intelligence Agency

25X1

Washington, D.C. 20505

DIRECTORATE OF INTELLIGENCE

29 MAY 1985

MEMORANDUM FOR: James A. Placke
Deputy Assistant Secretary for
Near East and South Asian Affairs
Department of State

FROM: [redacted]
Director of Global Issues

25X1

SUBJECT: Persian Gulf Oil: Strategic Importance [redacted]

25X1

In response to your request please find attached our most recent assessment of current and potential non-Communist world dependence on Persian Gulf oil supplies. Although the present combination of excess supply capacity and weak oil demand provides considerable protection against oil supply disruptions in the near term, the dependence of the industrialized countries on Persian Gulf oil supplies remains sizeable. Moreover, we expect this reliance to increase in coming years as consumption rises and oil production in the developed nations declines. The erosion of surplus oil productive capacity will leave the non-Communist world more vulnerable to supply cutoffs and upward pressure on oil prices in the 1990s. If you or members of your staff have questions concerning the report, please call [redacted]

25X1

25X1

25X1

Attachment:
Persian Gulf Oil: Strategic Importance [redacted]
GI M 85-10143, May 1985, [redacted]

25X1

25X1

25X1

25X1

25X1

25X1

SUBJECT: Persian Gulf Oil: Strategic Importance

25X1

OGI/SRD/EMB (21 May 1985)

25X1

Distribution:

- 1 - James A. Placke, State
- 1 - SA/DDCI
- 1 - ExDir
- 1 - DDI
- 1 - DDI/PES
- 1 - NIO/Econ
- 1 - DD/OGI, D/OGI
- 1 - CPAS/ISS
- 1 - OGI/PG/Ch
- 8 - OGI/EXS/PG
- 1 - Ch/SRD
- 1 - SRD/EMB

25X1

25X1

[redacted]
Central Intelligence Agency

Washington, D.C. 20505

DIRECTORATE OF INTELLIGENCE

22 May 1985

Persian Gulf Oil: Strategic ImportanceSummary

Although the present combination of excess oil supplies and weak oil demand provides considerable protection against oil supply disruptions in the near term, industry forecasts indicate that this supply cushion will shrink in the years ahead. The dependence of the industrialized countries on imported oil supplies from the Persian Gulf is expected to increase due to rising consumption and lower oil production--especially in the United States and Western Europe. The erosion of surplus oil productive capacity will leave the non-Communist world more vulnerable to supply cutoffs and renewed upward pressure on oil prices in the 1990s. Since the 1973 Arab Oil Embargo, consuming countries have adopted policies to lessen energy vulnerability. The success of policies to conserve energy, diversify away from oil and build strategic oil stockpiles has given consuming countries some protection against unexpected supply cutoffs. Weak market conditions, however, are causing some complacency in consuming countries and the existence of excess supply capacity and a slow erosion in oil and other energy prices are reducing incentives to invest in new productive capacity for oil and other fuels. Relaxation of energy contingency planning over the next few years could leave the industrialized countries more vulnerable in the 1990s, particularly since leadtimes to bring new energy supply projects onstream can exceed 10 years. [redacted]

25X1

This memorandum was prepared by [redacted]
Energy Markets Branch, Office of Global Issues. The information
contained herein is updated to May 1985. Comments may be
directed to [redacted] Chief, Energy Markets Branch, [redacted]

25X1

25X1

25X1

GI M 85-10143

25X1

25X1

Dependence on Persian Gulf Oil Supplies

The Persian Gulf region remains a critical source of oil supplies for the non-Communist world. The Persian Gulf countries (Saudi Arabia, Iran, Iraq, Kuwait, the United Arab Emirates and Qatar) produced an estimated 12 million b/d in 1984, 25 percent of total non-Communist output. Available oil productive capacity in the Persian Gulf approximates 17 million b/d leaving a supply cushion of 5 million b/d (Table 1). Nearly 80 percent or four million b/d of the supply cushion is in Saudi Arabia. Despite lower oil use and increased production, OECD countries as a group still relied on oil from the Persian Gulf for about one-fifth of total oil consumption in 1984. US oil imports from Persian Gulf countries approximated 500,000 b/d--roughly 3 percent of consumption. Western Europe and Japan are more dependent on Persian Gulf oil than the United States (Figure 1). Western Europe imported about 3 million b/d from Persian Gulf countries last year, amounting to about 25 percent of consumption, while Japan relied on the region for 2.7 million b/d or 60 percent of oil requirements.

25X1

The developed countries--as well as the oil-importing developing nations--will remain highly dependent on oil from the volatile Persian Gulf. We expect that at least one-fourth of total non-Communist supplies will continue to pass through the Strait of Hormuz. Although the United States depends less than most industrialized countries on oil imports--and has a sizeable oil stockpile--the US would not be immune from the negative economic impacts of an oil supply disruption now or in the future. A rise in world oil prices would cause an equivalent increase in domestic US oil prices and any net oil supply shortfall would be shared among IEA members.

25X1

The Resource Base

The concentration of oil production in the Middle East reflects the location of oil reserves and the low cost of production in this region. Total non-Communist proved oil reserves were estimated at 615 billion barrels at yearend 1984. Nearly 65 percent of these reserves are located in Persian Gulf countries (Figure 2). Oil reserves in Saudi Arabia approximate 169 billion barrels or nearly 30 percent of total non-Communist reserves and, at 1984's production level, would have a life of about 100 years. In contrast, total proved oil reserves in all the OECD countries combined approximate only 60 billion barrels and, at current output levels, represent less than 10 years of production.

25X1

The Outlook to 1995

Most forecasters expect soft oil market conditions to continue through most of the 1980s, with gradually rising oil demand and declining non-OPEC oil production beginning to tighten

25X1

25X1

FIGURE 1

MAJOR CONSUMING COUNTRIES AND REGION:
OIL IMPORT DEPENDENCE

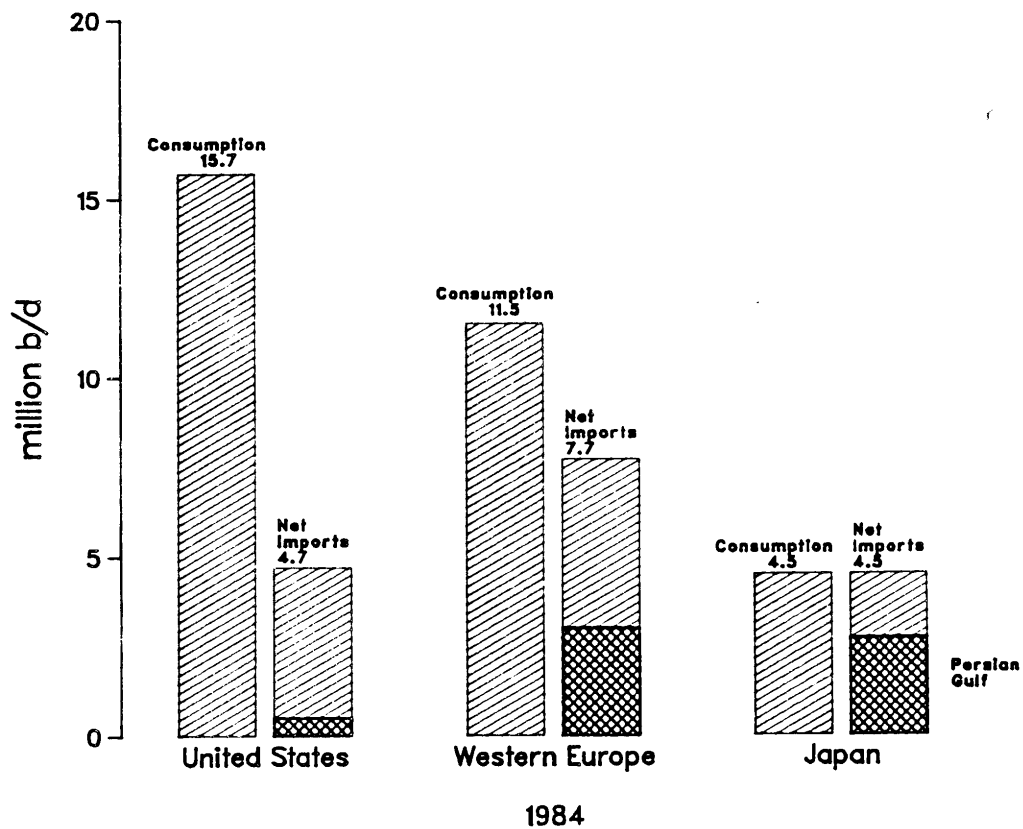
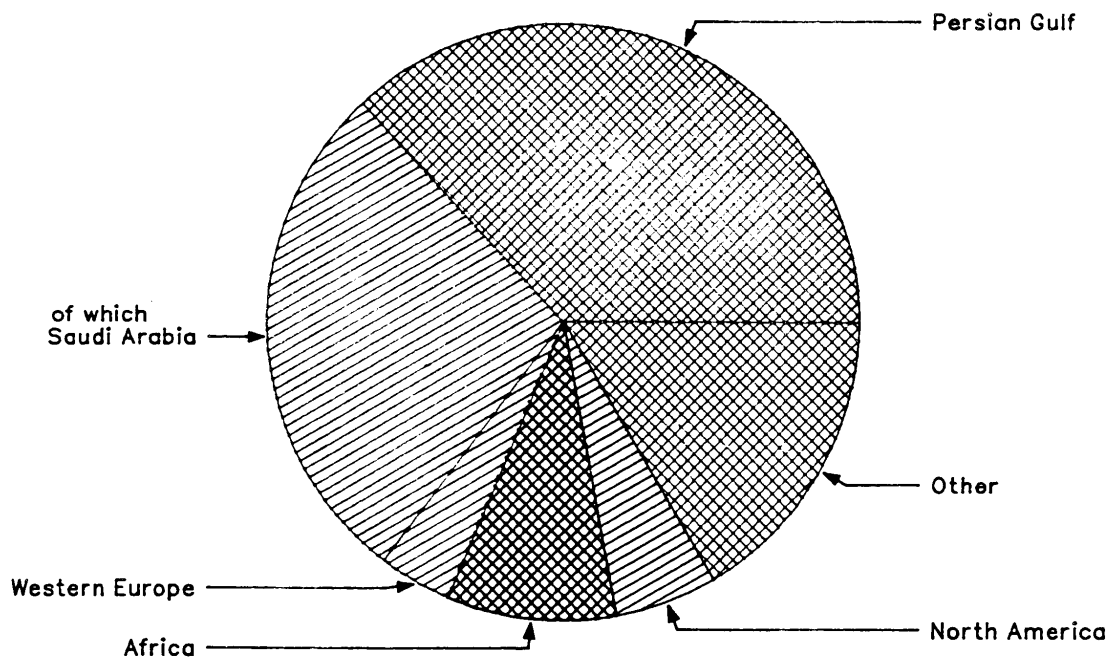


FIGURE 2
NON-COMMUNIST PROVED OIL RESERVES
(at year-end 1984)



the market in the early 1990s. We examined an array of forecasts by oil companies and consulting firms to assess long-term market conditions and likely dependence on Persian Gulf oil supplies. Most of the forecasts assume that the non-Communist world will experience real economic growth of about three percent per annum between 1985-1995 and that oil prices will fall in real terms through the end of the decade and then hold fairly steady through the mid-1990s. [REDACTED]

25X1

Demand Projections and Non-OPEC Supply Forecast

Non-Communist oil consumption is expected to rise slowly through the mid-1990s. Forecasts of non-Communist oil consumption in 1995 generally range from 49.5-53.5 million b/d (51.5 mid range) compared with 46 million b/d in 1984 (Table 2). Although oil's share of total energy demand is expected to fall during the period, oil will continue to account for 40-45 percent of total energy requirements. Most of the growth in oil use is expected to occur in the less developed countries. Consumption in OECD countries is expected to hold fairly steady or rise slightly during the period to approximate 34-36 million b/d in 1995 compared with 34 million b/d consumption in 1984.

- o US oil consumption is expected to rise slowly and average about 16 million b/d by 1995.
- o West European oil consumption is expected to approximate 12 million b/d in 1995, slightly above 1984 levels.
- o Japanese oil use is expected to approximate 4.5-5 million b/d in 1995--perhaps as much as 500,000 b/d above last years level. [REDACTED]

25X1

Most forecasters expect non-OPEC supplies including net Communist exports to trend downward and approximate 25.5 million b/d by 1995, or slightly below 1984 levels. According to most industry forecasts, higher LDC output will be offset by lower production in the United States and Western Europe and a decline in net exports from Communist countries. Some industry sources anticipate US production could fall from 10.5 million b/d in 1984 to about 9 million b/d by 1995. Indeed, several industry sources assert that the recent increases in OECD oil output have come at the expense of a faster decline in production capability in the future. [REDACTED]

25X1

Supply Availability from OPEC

Reduced spending on development and maintenance of oil productive capacity in OPEC countries has already caused available capacity to decline 8 million b/d from its peak of nearly 35 million b/d in 1977. Given the demand outlook, OPEC's available capacity in 1995 probably will be on the order of 27-30 million b/d with Persian Gulf countries accounting for about 17-20 million b/d of the total. An end to the Iran-Iraq war could

lead to a faster and greater increase in productive capacity in these two countries as they attempt to rebuild their economies. Within a few years after the end of the war, Iraq and Iran combined could have about 8 million b/d of capacity, or more than 3 million b/d above current levels. [REDACTED]

25X1

Demand for OPEC Oil

Industry forecasts indicate demand for OPEC oil will rise gradually during the next 10 years and range from 21-29 (25.5 mid range) million b/d by 1995. While this forecast implies surplus available capacity of about 2-5 million b/d in the early to mid-1990s, industry analysts believe 2-3 million b/d of spare capacity is needed to ensure price stability. All the industry assessments we reviewed indicate that surplus oil production capacity will become increasingly concentrated in the Persian Gulf region (Figure 3). [REDACTED]

25X1

These supply and demand estimates suggest that the major developed countries will remain heavily dependent on oil imports through the mid-1990s, and that US oil import dependence will rise. Although future oil import patterns are difficult to predict, considering the vast oil reserves in the Persian Gulf we expect the industrialized countries to become increasingly dependent on the Middle East to meet a substantial portion of oil requirements.

- o US oil imports are projected by industry studies to be running at 6-7 million b/d by 1995 or about one-third of oil consumption.
- o Western Europe will rely on imports for 8-9 million b/d or about two-thirds of oil requirements.
- o Japan will remain virtually totally dependent on foreign supplies and import 4-5 million b/d. [REDACTED]

25X1

Market Vulnerabilities

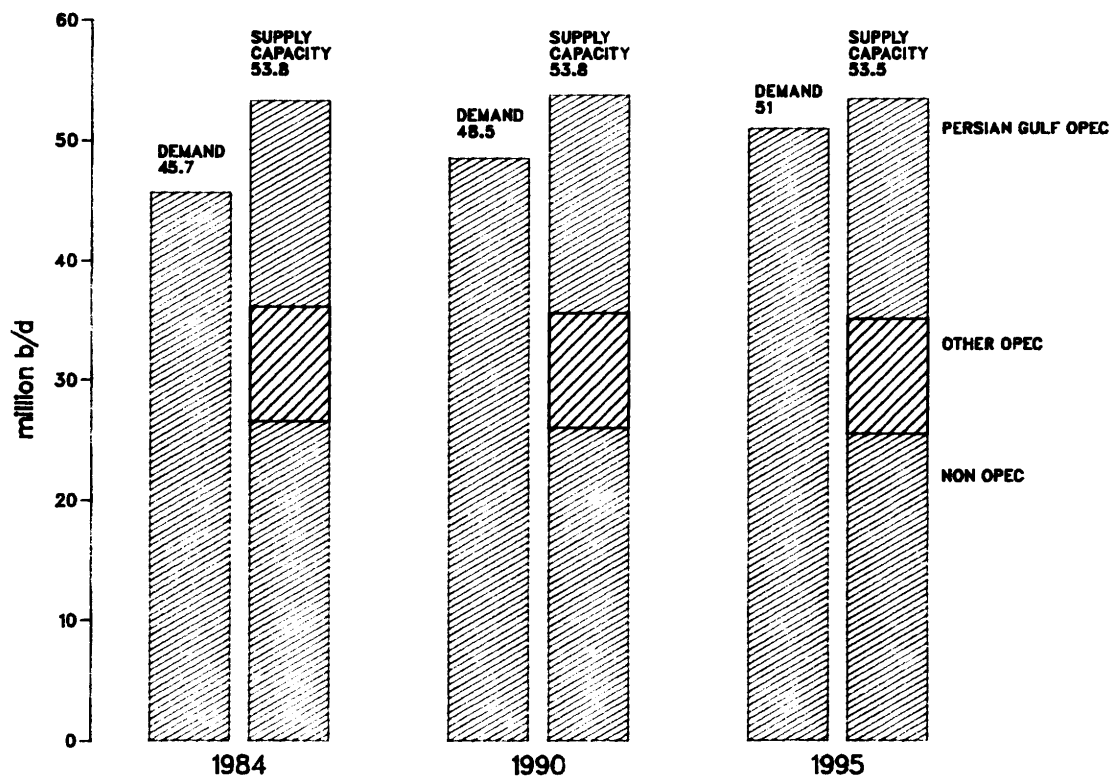
The concentration of oil facilities in the Persian Gulf makes oil supplies from the area extremely vulnerable to acts of sabotage, revolution, or war. On the basis of the uncertain political climate in the Middle East and the Iraq-Iraq war, we believe there is a high probability of Persian Gulf oil production capability being damaged or of supplies through the Strait of Hormuz being interdicted at some time in the future. The impact of any disruption of Gulf oil exports in the near term would depend on the duration of the disruption and the availability of non-Gulf oil, alternative fuels, and petroleum stockpiles. [REDACTED]

25X1

The current combination of surplus productive capacity and weak consumption affords industrialized countries considerable protection against a short-term oil supply disruption. Available

FIGURE 3

NON-COMMUNIST OIL DEMAND AND SUPPLY CAPACITY



surplus capacity that could offset a supply cutback could average about 9 million b/d this year--because of expected lower OPEC oil production--but only some 2-3 million b/d of that surplus is outside the Persian Gulf. Even under these favorable market conditions, supply disruptions could trigger a new round of upward price pressure. It would take a major interruption, however, to cause any significant or long-lasting price increase.

- o If only Iranian exports were disrupted, the impact would be minimal for most consumers. Surplus available capacity is sufficient to absorb the loss of Iranian exports, which averaged about 1.8 million b/d last year. Spot prices would begin to rise, however, if buyers anticipated a further spreading of the conflict.
- o If Jazireh-ye Khark (Khark Island) were shut down, the Iraqi pipeline through Turkey severed, and Kuwaiti exports cut off, the impact would be substantially more severe. The loss of nearly 5 million b/d of production from these countries would eliminate most of the surplus capacity in the market and leave oil-importing countries in a high-risk situation. While other producers could replace most of these lost supplies by increasing production, the uncertainty surrounding the length of such a disruption and the risk to other supplies in the Gulf would almost certainly cause upward price pressures.

The expected erosion of excess productive capacity by the mid-1990s points to a return to a period of increased oil vulnerability and greater reliance by the developed countries on Persian Gulf oil supplies. Under these circumstances even a relatively minor disruption could trigger another crisis. [REDACTED]

25X1

Oil Supply Disruptions and Impacts

The threat posed by the Iran-Iraq war is not the only event that could disrupt the flow of oil in the Persian Gulf region. Because of the concentration of highly vulnerable oil facilities, most producing countries in the Gulf are susceptible to having supplies disrupted by foreign military or terrorist attack. Moreover, the largest part of oil supplies from the area must still transit the narrow and strategic Strait of Hormuz. A change in regime or political policies could also pose a threat to oil flow patterns. [REDACTED]

25X1

It is difficult to predict a major internal or external disruption in oil exports in any particular exporting nation or region, but we believe that the probability of some sort of disruption occurring within OPEC countries is substantial. Because a large proportion of oil used by consuming countries will continue to be imported, the industrialized countries will remain vulnerable to unexpected supply cutoffs. Indeed, as long as the Iran-Iraq war continues, the supply outlook from these

25X1

countries remains uncertain and the potential exists for the conflict to spread to other regions in the Persian Gulf. [REDACTED]

25X1

Technical and accidental supply disruptions, such as pipeline leaks or fires, are generally limited in duration, severity, and impact. Deliberate supply restrictions or cutoffs --due to disagreements on price or because of political motives, for example--can be more serious. In these circumstances the duration and magnitude of the supply loss is more difficult to predict. Specific conditions on the eve of disruptions also significantly influence market reaction, including:

- o Availability and location of excess supply capacity.
- o Level of commercial and strategic stocks.
- o Position in the business cycle and the strength of energy consumption growth.
- o Fuel-switching capabilities.
- o The extent of international cooperation. [REDACTED]

25X1

Since 1950 oil supplies from major exporting countries have been interrupted on 14 occasions. Although most of these disruptions have had little impact on the oil market, two separate incidents during the 1970s caused severe price pressures:

- o The 1973/74 Arab oil embargo helped support a quadrupling of crude oil prices and contributed to a sharp drop in world economic growth.
- o Temporary supply losses resulting from the Iranian revolution set off a buying panic that more than doubled oil prices between late 1978 and early 1980 (Figure 4).

Our analysis indicates a 1-2 million b/d net oil supply shortfall of six months could cause oil prices to rise by about \$5-10 per barrel depending on the market's perception of the size and duration of the interruption. A substantial runup in oil prices could slow or interrupt economic growth in OECD countries and trigger another round of inflation. LDC oil importers also would be hurt and their ability to service foreign debt greatly reduced. [REDACTED]

25X1

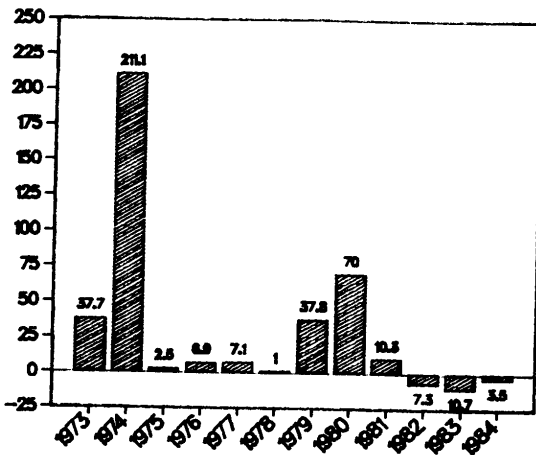
Producing Country Policies and Interests

The availability of alternate oil supplies in the event of a disruption depends in large part on the willingness of countries with excess capacity to increase output. The Persian Gulf countries that account for most of the existing surplus capacity are not homogeneous in production capabilities or policies. Because Saudi Arabia accounts for the largest portion of this

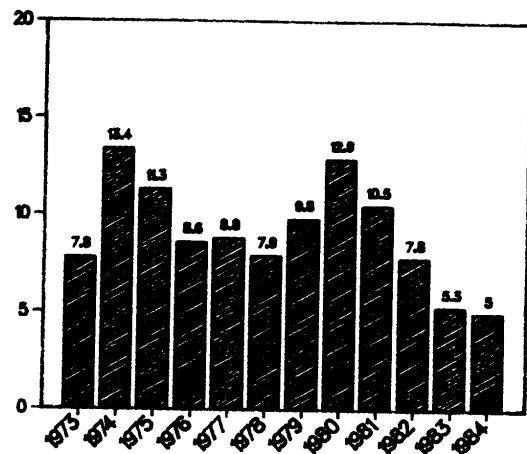
25X1

OECD ECONOMIC INDICATORS AND OIL PRICE TRENDS

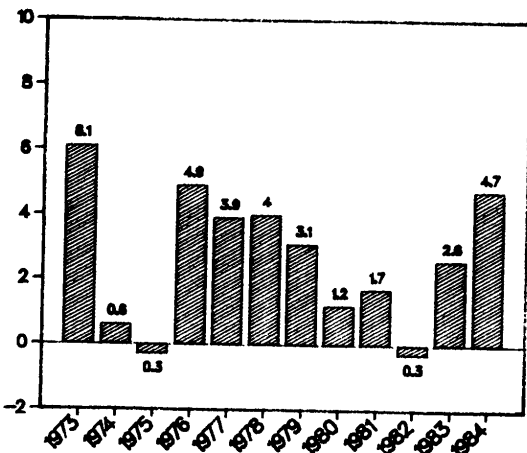
PERCENT CHANGE IN LANDED CRUDE OIL PRICE



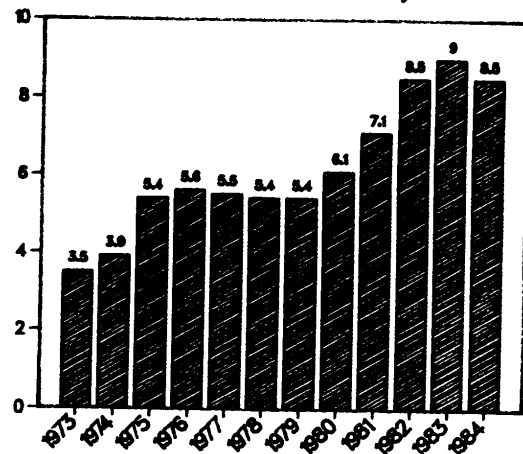
PERCENT CHANGE IN CONSUMER PRICES



PERCENT CHANGE IN REAL GNP



UNEMPLOYMENT RATE
(Percent of Total Labor Force)



excess capacity, an early decision by Riyadh to raise production to offset a supply shortfall in a disruption--assuming that Saudi production and export capabilities were still intact--would be critical to minimize market uncertainty and upward pressure on oil prices. Indeed, an upward ratcheting of official prices could be avoided only if producers increased output without demanding premiums on official prices. [REDACTED]

25X1

During the 1979/80 price runup, most OPEC producers increased production to maximum levels. All the countries, however, also increased official oil prices and some demanded premiums well above the price increase previously agreed to by OPEC members at their yearend 1978 meeting. The Saudis also raised their official prices earlier than scheduled, but Saudi prices remained at the lower end of the range of OPEC official prices and Saudi production averaged about 1 million b/d above planned levels. Riyadh's moderate pricing policy and decision to raise output to try to avoid a precipitate price increase reflected Saudi concern that too high an oil price would disrupt the long-term market for their oil. [REDACTED]

25X1

Decisions taken by Saudi Arabia and each of the other Persian Gulf oil producing countries regarding their oil productive capacities and price policy will influence the future path of oil prices, even in the absence of an oil supply disruption. The precise role each of these countries will play is difficult to assess, but because Riyadh has an interest in preserving a long-run market for Saudi oil, Saudi price policy probably is more complementary to the interests of the oil consuming nations than other producers with larger populations and lower oil reserves. The negative economic impacts of past supply disruptions and the resulting decline in the demand for OPEC oil in recent years appears to have reinforced Saudi belief at least that major oil producers and consumers have a common interest in some moderation and stability in world oil prices. In our judgment, this policy was illustrated in late 1983 when Riyadh built a floating oil stockpile outside the Persian Gulf because of concerns that a flare-up of hostilities between Iraq and Iran might disrupt exports from the area. [REDACTED]

25X1

We expect the United States to have a continued stake in the flow of oil from the Persian Gulf even though US imports from the area currently are small. Oil supplies from the Persian Gulf probably will constitute a growing volume and share of non-Communist oil supplies over the next 10 years and denial of a significant portion of these supplies for a substantial period at any time would create a worldwide oil shortage--and negative economic impacts--at least as great as those experienced in 1973 and 1979. Weak market conditions, however, are causing some complacency in consuming countries and the existence of excess supply capacity and a slow erosion in oil and other energy prices are reducing incentives to invest in new production capacity for oil and other fuels. Relaxation of energy contingency planning over the next few years could leave the industrialized countries

more vulnerable in the 1990s, particularly since leadtimes to
bring new energy supply projects onstream can exceed
10 years. [REDACTED]

25X1

Table 1
Non-Communist Oil Production and Available Capacity in 1984
 (million b/d)

	<u>Production</u>	<u>Available Capacity</u>	<u>Surplus Capacity</u>
OPEC	18.9	26.8	7.9
of which			
Persian Gulf	11.6	17.2	5.6
of which			
Iran	2.4	3.2	0.8
Iraq	1.2	1.2	0.0
Kuwait	0.9	1.3	0.4
Qatar	0.4	0.6	0.2
Saudi Arabia	4.4	8.0	3.6
United Arab Emirates	1.2	1.7	0.5
Neutral Zone	0.5	0.6	0.1
natural gas liquids	0.6	0.6	0.0
Non-Persian Gulf	7.4	9.6	2.2
of which			
Algeria	0.7	0.8	0.1
Ecuador	0.3	0.3	0.0
Gabon	0.2	0.2	0.0
Indonesia	1.4	1.6	0.2
Libya	1.1	1.8	0.7
Nigeria	1.4	2.2	0.8
Venezuela	1.7	2.2	0.5
natural gas liquids	0.6	0.6	0.0
Non-OPEC ¹	26.1	26.5	0.4
Total Non-Communist	45.0	53.3	8.3

Note: Columns may not add due to rounding. We estimate that OPEC available capacity will increase to 27.0 million b/d in 1985.

25X1

¹Excludes refinery gain of about 600,000 b/d.

Table 2
Summary of Oil Supply and Demand Projections

	<u>1984</u> <u>Preliminary</u>	<u>Range</u>	<u>1990</u> <u>Mid Range</u>	<u>Range</u>	<u>1995</u> <u>Mid Range</u>
Non-Communist oil consumption	45.7	47.0-51.0	48.5	59.5-53.5	51.0
of which					
United States	15.7	15.0-16.0	15.5	14.5-16.5	15.8
Western Europe	11.5	11.2-12.0	11.9	11.8-12.6	4.5
Japan	4.5	4.2-4.7	4.5	4.1-4.8	4.5
Oil Supplies ¹	45.7	47.0-51.0	48.5	49.5-53.5	51.0
of which					
OPEC	18.9	19.5-25.0	22.5	21.3-29.2	25.5
Non-OPEC	26.1	25.5-28	26.0	24.2-29.4	25.5
of which					
United States	10.4	8.6-9.4	9.1	7.6-8.9	8.6
Western Europe	3.8	3.6-3.8	3.7	2.7-3.6	3.1
Net CPE exports	1.6	1.2-1.6	1.4	1.9-(2.0)	1.3
Net Import Requirement					
United States	4.7		5.8		6.6
Western Europe	7.7		8.2		9.1
Japan	4.5		4.5		4.5

¹Total oil supply figure includes refinery gain.